



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/572,994

11/08/2006

Lloyd A Nelson

ARZ-024630-WO

9073

67844

7590

03/15/2011

ARIZONA CHEMICAL COMPANY, LLC

ATTN: INTELLECTUAL PROPERTY DEPARTMENT (LEGAL)

P.O. Box 550850

Jacksonville, FL 32255

EXAMINER

VASISTH, VISHAL V

ART UNIT

PAPER NUMBER

1771

MAIL DATE

DELIVERY MODE

03/15/2011

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/572,994	<b>Applicant(s)</b> NELSON ET AL.	
	<b>Examiner</b> VISHAL VASISTH	<b>Art Unit</b> 1771	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 18 November 2010.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. Applicants' response filed on 11/18/2010 amended independent claims 1, 16, 25, 27 and 29, and amended dependent claims 4-14, 18-22 and 24. Applicants' amendments overcome the objections to the specification and the 35 USC 112 rejections from the office action mailed on 3/18/2010, and therefore these objections and rejections are withdrawn. Applicants' amendments in light of their arguments including the declaration filed by Nelson on 11/18/2010 are persuasive in overcoming the 35 USC 102 and 103 rejections over Denis and Heimann in view of Denis from the office action mailed on 3/18/2010, and therefore these rejections are withdrawn.

### ***Claim Objections***

2. Claims 26, 28 and 30 are objected to because of the following informalities: the claims have the status identifier "currently amended," which is inaccurate and the claims should have the correct status identifier which is "original." Appropriate correction is required.

3. Claims 5-14, 19-22 and 24 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend from another multiple dependent claim. See MPEP § 608.01(n). The claims have been treated on their merits but appropriate correction is still required.

### ***Specification***

Art Unit: 1771

4. The amendment filed 11/18/2010 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is in amended claims 1, 16, 25, 27 and 29 from which all other claims depend. The claim states in pertinent part; "maintained at that temperature from about 5 hours" and separately, "wherein further polypropylene increases about 5 wt% or less through absorption of the composition" when looking to the specification there is no mention of such limitations. Paragraph [0051] of the instant specification discusses the reaction mixture being maintained for 51/2 hours but does not recite about 5 hours, and Paragraphs [0063]-[0064] of the instant specification discuss ester-polypropylene compatibility and 5.06 is the lowest number representing polypropylene increase.

***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claims 1-30 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The added material which is not supported by the original disclosure is in amended claims 1, 16, 25, 27 and 29 from which all other claims depend. The claim states in pertinent part; "maintained at that temperature from about 5 hours" and separately, "wherein further polypropylene increases about 5 wt% or less through absorption of the composition" when looking to the specification there is no mention of such limitations. Paragraph [0051] of the instant specification discusses the reaction mixture being maintained for 5 1/2 hours but does not recite about 5 hours, and Paragraphs [0063]-[0064] of the instant specification discuss ester-polypropylene compatibility and 5.06 is the lowest number representing polypropylene increase.

### ***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

9. Claims 1-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Denis et al., US Patent No. 4,036,771 (hereinafter referred to as Denis) in view of Tuyle, US Patent No. 3,071,546 (hereinafter referred to as Tuyle).

Denis discloses a composition comprising a mixture of complex ester oils (Col. 2/L. 55-57) wherein each ester oil is the result of esterification of a trimer and dimer acid with a dihydroxyl compound and a monohydroxyl compound (as recited in claims 1-2 and 16) (Col. 1-2/L. 51-54). Denis discloses that the dimer and trimer acids results from the dimerization or trimerization of unsaturated fatty acids wherein the dimerization or trimerizaion can be followed by a hydrogenation operation (as recited in claims 4 and 18) (Col. 3/L. 12-18). Denis discloses that the dihydroxyl compounds include ethylene glycol and neopentyl glycol (as recited in claims 7-9 and 23) (Col. 4/L. 12-24) and the monohydric alcohols include isotridecanol and 2-ethylhexanol (as recited in claims 5-6, 10-11, 19-21 and 23) (Col. 4/L. 25-35).

Denis also discloses that the compositions of the invention can result from esterification of mixtures in varying proportions of dimeric + trimeric acids and monocarboxylic acids by a polyalkylene glycol, the proportions of the reagents then being such that to 1 mole of acid (dimeric + trimeric) there substantially corresponds 2 moles of polyalkylene glycol and the number of moles of monocarboxylic acid necessary to esterify the remaining hydroxyl functions. It would have been obvious to one of ordinary skill in the art at the time of the invention that the weight ratio of trimer to dimer acid would fall within the range of 80:20 to 20:80 wt% based on the disclosure of Denis (as recited in claims 3 and 17).

Denis discloses both a first and second complex ester wherein the first ester has all the reaction components of the instant claims as does the second ester. Therefore, it is the position of the examiner that the first ester would inherently have a higher viscosity than the second ester as recited in instant claims 12 and 22-23 and that the combination of complex esters would have a viscosity measured at 100°C of about 40 cSt as recited in instant claims 13-16.

Denis discloses the dimmers and trimers coming from polymerization of unsaturated fatty acids such as those produced from natural sources including soya beans and linseed oils (Col. 3/L. 12-48). Denis does not, however, explicitly disclose the trimer acids derived from tall oils as recited in claims 1, 16, 25, 27 and 29.

Tuyle discloses a lubricant composition comprising a base oil and additives wherein the reference states that the isostearic acids 70 produced from tall oil, oleic acid, cotton seed oil, soybean oil, etc., are all substantially alike and are not subject to independent identification. It would have been obvious to use either soya oil or tall oil as the source of unsaturated fatty acids as the components are essentially equivalent as disclosed in Tuyle (Col. 3/L. 54-74).

Claims 1 and 16 and the claims which depend therefrom are product by process claims and therefore it is the position of the examiner that "[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product by process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior

product was made by a different process.” In re Thorpe 777 F.2d 695, 698, 227 USPQ 964,966 (Fed Cir. 1985) and MPEP 2113.

### ***Claim Rejections - 35 USC § 103***

10. Claims 25-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heimann et al., US Patent No. 6,010,984 (hereinafter referred to as Heimann) in view of Denis in further view of Tuyle.

Heimann discloses a lubricant composition for optical fiber cables (Col. 9/L. 31) comprising a silica/silicate mixture (see Abstract), a base oil and a thickener.

Heimann discloses base oil that include synthetic esters (Col. 3/L. 8-17), but Heimann does not explicitly disclose a mixture of complex esters that include the reaction components of a trimer acid, a polyhydric alcohol and a monohydric alcohol.

Denis/Tuyle disclose a composition comprising a mixture of complex ester oils (Col. 2/L. 55-57) wherein each ester oil is the result of esterification of a trimer and dimer acid with a dihydroxyl compound and a monohydroxyl compound (Col. 1-2/L. 51-54). Denis discloses that the dihydroxyl compounds include ethylene glycol and neopentyl glycol (Col. 4/L. 12-24) and the monohydric alcohols include isotridecanol and 2-ethylhexanol (Col. 4/L. 25-35).

Denis discloses both a first and second complex ester wherein the first ester has all the reaction components of the instant claims as does the second ester. Therefore, it is the position of the examiner that the first ester would inherently have a higher



viscosity than the second ester and that the combination of complex esters would have a viscosity measured at 100°C of about 40 cSt. Tuyle discloses that unsaturated fatty acids derived from either soya bean oils as disclosed in Denis or tall oils as recited in the instant claims are essentially the same.

It would have been obvious to one of ordinary skill in the art at the time of the invention to use the complex ester composition of Denis/Tuyle in the composition of Heimann in order to enhance the anti-scuffing properties and reduce the coefficient of friction of the composition (Col. 9/L. 29-35 of Denis).

Claims 25, 27 and 29 and the claims which depend therefrom are product by process claims and therefore it is the position of the examiner that "[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product by process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." In re Thorpe 777 F.2d 695, 698, 227 USPQ 964,966 (Fed Cir. 1985) and MPEP 2113.

### ***Response to Arguments***

11. Applicants' arguments filed on 11/18/2010 have been considered and are moot in light of the prior 35 USC 102 and 103 rejections being withdrawn. Applicants' amendments necessitated a new grounds of rejection as set forth above.

***Conclusion***

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to VISHAL VASISTH whose telephone number is (571)270-3716. The examiner can normally be reached on M-R 8:30a-5:30p.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on (571)272-1444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1771

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

VVV

/Glenn A Caldarola/  
Supervisory Patent Examiner, Art  
Unit 1771